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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,239	06/20/2001	Jeffrey D. Washington	5150-48900	5831

35690 7590 08/20/2007

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ART UNIT	PAPER NUMBER
2173	

MAIL DATE	DELIVERY MODE
08/20/2007	PAPER

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/886239
Filing Date: June 20, 01
Appellant(s): WASHINGTON ET AL

Jeffrey Hood
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10/24/06 appealing from the Office action mailed 01/30/06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6343292	Roach et al	01-2002
4933878	Guttag et al	06-1990
5497500	Rogers et al	03-1996

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-2, 5-6, 9-10, 13-14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roach et al ("Roach", USP 6343292) and Guttag et al ("Guttag", USP 4933878).

Claims 7, 15, 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roach et al ("Roach", USP 6343292), Guttag et al ("Guttag", USP 4933878), and Rogers et al ("Rogers", USP 5497500).

The detailed rejections are as follows:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 5-6, 9-10, 13-14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roach et al ("Roach", USP 6343292) and Guttag et al ("Guttag", USP 4933878).

Regarding claims 1 and 9, Roach teaches steps for creating a graphical program that performs a numerical function (lines 59 of col 3 to lines 6 of col. 4), comprising displaying a node in a graphical program in response to user input (user can select and place an SIB on the template (col 3, lines 66-67) wherein the node is operable to perform a first numerical function (addition, subtraction, multiplication, or division);

configuring the node to receive data values, in response to user input (configuring parameters for the node) (col 4, line 67) (col 5, lines 33-36); configuring the node with criteria information in response to user input, wherein the criteria information indicates that the first numerical function is to be performed (addition, subtraction, multiplication, or division) on at least a set of the received data values received by the node (configuring parameters for the node) (col 4, line 67) (col 5, lines 33-36) (col 5, lines 36-39); executing the graphical program; the node receiving a plurality of data values during execution of the graphical program (data values fall within desired range of value) wherein the node maintains state information regarding received data values (numerical ranges) (col 5, lines 34-38), (Fig. 3-6); the node determining a first data collection on which to perform the first numerical function based on the criteria information and the state information and performing the first numerical function on the first data collection (Fig. 4) (the "numerical ranges" provides a status of the parameters: validation status if they are in the range of values and non-validation status if they are outside the range of values (col 5, lines 25-41)). Roach does not teach that the numerical function is to be performed on the first data collection which is a subset, but not all of the received data values. However, such feature is known in the art as taught by Guttag. Guttag teaches performing a numerical function on a subset, but not all of the received data values (col 24, lines 1-3). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Guttag's teaching of performing a numerical function on a first data collection which is a subset, but not all of

the received data values in Roach's system with the motivation being to perform the numerical function on a part of received data.

Regarding claims 2 and 10, Roach teaches receiving user input requesting to specify configuration information for the node (receiving a request for creating a new service for a subscriber) (col 3, lines 59-61), displaying a graphical user interface (template of GUI 4) (col 3, lines 61) for specifying configuration information for the node, in response to the user input requesting to specify configuration information for the node (specifying parameter for the SIB icon) (col 3, lines 66-67). Roach further teach configuring the node with the criteria information (addition, subtraction, multiplication, or division) (col 5, lines 25-40).

Regarding claims 5 and 13, Roach teaches the node is a primitive node provided by a graphical programming development environment for inclusion in the graphical program (SIB primitive) (col 4, lines 37-46).

Regarding claims 6 and 14, Roach teaches the numerical function performed on the data collection is a summation function (addition function) (col 5, lines 50) (Fig. 5)

Regarding claim 17, Guttag inherently teaches that the number of received data values is greater than the number of data value in the subset (col 24, lines 1-3).

Claims 7, 15, 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roach et al ("Roach", USP 6343292), Guttag et al ("Guttag", USP 4933878), and Rogers et al ("Rogers", USP 5497500).

Regarding claims 7 and 15, Roach teaches configuring the node to receive data values comprises connecting an input terminal of the node from an output terminal of

another node in the graphical program (line 66 of col 3 to line 2 of col 4). Roach does not teach that the node receives data via the connected wire. However, such feature is known in the art as taught by Rogers. Rogers teaches that the node receives data via the connected wire (Fig. 75). Since Roach teaches connecting an input terminal of the node from an output terminal of another node in the graphical program (line 66 of col 3 to line 2 of col 4) and since Roach and Rogers' teachings are in the same field of graphical program wherein nodes are interconnected via wires, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Rogers' teaching transferring data via wires in Roach's system with the motivation being to enable transferring data directly via wiring connections between nodes.

Regarding claim 18, Roach does not teach performing a second numerical function on the first data collection. However, such feature is known in the art as taught by Rogers. Rogers teaches performing different operations (addition, subtraction) on the same data collection (Fig. 75) (The terminal is indeed a compound node (see terminal pattern for a 3-node terminal in Fig. 75). This terminal performs a first numerical function (add function) and second numerical function (subtract function) on the first data collection (A and B). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Rogers' teaching of performing different arithmetic operations on the same data collection in Roach's system with the motivation being to perform different operations on the same set of data.

Regarding claim 19, Rogers teaches a first output terminal for outputting a result of performing the first numerical function on the first data collection and a second output

terminal for outputting a result of performing the second numerical function on the first data collection (Fig. 75) (the compound node (see terminal pattern for a 3-node terminal in Fig. 75) indeed produces two different outputs, one for add function (A+B) and another one for subtract function (A-B)).

Allowable Subject Matter

Claims 3-4 and 11-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 3 and 11, the prior art does not teach "the node is configurable with a plurality of collection modes wherein each collection mode defines a subset of received data values on which to perform the first numerical function; wherein said configuring the node with the criteria information in response to user input comprises configuring the node with a first collection mode in response to user input selecting the first collection mode from the plurality of collection modes; wherein said node determining the first data collection based on the criteria information and the state information comprises the node determining the first data collection based on the first collection mode and the state information" in specific combinations recited in claims 3 and 11.

(10) Response to Argument

Claims 1 and 9

Appellant argues "the Guttag is not in the same field of Appellant's endeavor and is not reasonably pertinent to the subject matter recited in the present claims" and

"Guttag nowhere teaches or even remotely suggests the concept of a graphical program". The examiner respectfully disagrees. The examiner respectfully submits that the examiner is aware that it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, since both Guttag's teaching and Appellant's application are in the same field of processing computer graphics data using arithmetic functions, the examiner respectfully submits that Guttag teaching is in the same field of Appellant's endeavor. Furthermore, since Guttag teaches that a numerical function can be performed on a portion of the received data values, the examiner respectfully submits that Guttag teaching is reasonably pertinent to the particular problem with which the Appellant was concerned, that is, the node performs a numerical function on a subset of the plurality of data values received.

Appellant argues "Roach and Guttag, taken either singly or in combination, do not teach "configuring the node with the criteria information in response to user input, wherein the criteria information indicates that the first numerical function is to be performed on a subset, but not all, of the data values received by the node" since "Guttag nowhere teaches or even remotely suggests the concept of a graphical program. Thus, Guttag certainly does not teach the concept of criteria information which indicates that a numerical function is to be performed on a subset, but not all, of the data values received by a node in a graphical program." The examiner respectfully

submits that this argument attacks Guttag reference individually. Roach teaches the concept of a graphical program, a node in a graphical program, and further teaches that configuring the node with criteria information to perform a numerical function (addition, subtraction, multiplication, or division) on at least a set of the received data values (col 5, lines 36-39). Roach does not teach that the numerical function is to be performed on a subset, but not all of the received data values. Guttag is combined to teach performing a numerical function on a subset, but not all of the received data values (col 24, lines 1-3). Therefore, the examiner respectfully submits that the combination of Roach and Guttag indeed teaches "configuring the node with the criteria information in response to user input, wherein the criteria information indicates that the first numerical function is to be performed on a subset, but not all, of the data values received by the node". The examiner respectfully submits that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Appellant argues Roach does not teach "the node maintaining state information regarding received data values and using the state information to determine the data collection on which to perform the numerical function". The examiner respectfully disagrees. In Roach teaching, "numerical ranges" of Roach constitutes state information used to determine a data collection on which to perform the addition function since Roach teaches that the addition function is performed on the two parameters and the "numerical ranges" provides a status of the parameters: validation status if they are in

the range of values and non-validation status if they are outside the range of values (col 5, lines 25-41).

Appellant argues "the cited references do not teach configuring the node with criteria information which indicates that the numerical function is to be performed on a subset, but not all, of the data values received by the node", "the cited references do not teach the node determining a first data collection on which to perform the first numerical function based on the criteria information and the state information," and "explanation of the rejection of claim 1 does not take into account the limitation that the criteria information is used in determining the first data collection". The examiner respectfully disagrees. The examiner respectfully submits that this argument attacks Guttag reference individually. Roach teaches the concept of a graphical program, a node in a graphical program, and further teaches that configuring the node with criteria information to perform a numerical function (addition, subtraction, multiplication, or division) on at least a set of the received data values (col 5, lines 36-39). Roach does not teach that the numerical function is to be performed on a subset, but not all of the received data values. Guttag is combined to teach performing a numerical function on a subset, but not all of the received data values (col 24, lines 1-3). Therefore, the examiner respectfully submits that the combination of Roach and Guttag indeed teaches "configuring the node with the criteria information in response to user input, wherein the criteria information indicates that the first numerical function is to be performed on a subset, but not all, of the data values received by the node". The examiner respectfully submits that one cannot show nonobviousness by attacking

references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Furthermore, Roach teaches the node determining a first data collection on which to perform the first numerical function based on the criteria information (addition, subtraction, multiplication, or division) and the state information ("numerical ranges" provides a status of the parameters: validation status of if they are in the range of values and non-validation status of they are outside the range of values (col 5, lines 25-41) as seen in the rejection of claim 1 above.

Therefore, the examiner respectfully submits that claims 1 and 9 are unpatentable.

Claims 2 and 10

Appellant argues "Roach teaches nothing at all in the cited passage about receiving user input requesting to specify configuration information for a particular node (or for a particular SIB icon in the logic diagram) and then displaying a GUI in response to the request." The examiner respectfully disagrees since Roach teaches that in response to a request for modifying an existing service (which is represented by nodes as seen in Fig. 2), a GUI is employed to present a template which allows the user to modify parameters (i.e. specify configuration information) of SIB icons (nodes) (see col 3, lines 59-67).

Appellant argues "simply configuring a node to perform addition, subtraction, multiplication, or division is not at all the same with configuring the node with criteria information such as recited in claim 1. (Claim 1 recites that, "the criteria information

indicates that the first numerical function is to be performed on a subset, but not all, of the data values received by the node".)" The examiner respectfully disagrees. The examiner respectfully submits that this argument attacks Roach reference individually. Roach teaches the concept of a graphical program, a node in a graphical program, and further teaches that configuring the node with criteria information to perform a numerical function (addition, subtraction, multiplication, or division) on at least a set of the received data values (col 5, lines 36-39). Roach does not teach that the numerical function is to be performed on a subset, but not all of the received data values. Guttag is combined to teach performing a numerical function on a subset, but not all of the received data values (col 24, lines 1-3). The examiner respectfully submits that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Appellant argues "Appellant also notes that the Examiner admits with respect to claim 1 that, "Roach does not teach that the numerical function is to be performed on a subset, but not all of the received data values." Thus, it is difficult to ascertain why in the rejection of claim 2 the Examiner asserts that Roach teaches configuring the node with criteria information which indicates that the numerical function is to be performed on a subset, but not all, of the data values received by the node." The examiner respectfully disagrees. The examiner does not find anywhere in the rejection of claim 2 that the examiner asserts that Roach teaches configuring the node with criteria information which indicates that the numerical function is to be performed on a subset, but not all, of

the data values received by the node. The examiner still maintains that Roach does not teach that the numerical function is to be performed on a subset, but not all of the received data values and combines Guttag teaching to reject this limitation (see rejection of claim 1).

Therefore, the examiner respectfully submits that claims 2 and 10 are unpatentable.

Claim 17

Appellant argues "Guttag does not teach the concepts of a graphical program, or a node in a graphical program, or criteria information which indicates that a numerical function is to be performed on a subset, but not all, of the data values received by a node in a graphical program. Thus, Guttag also does not teach these further limitations". The examiner respectfully disagrees. The examiner respectfully submits that this argument attacks Guttag reference individually. Roach teaches the concept of a graphical program, a node in a graphical program, and further teaches that configuring the node with criteria information to perform a numerical function (addition, subtraction, multiplication, or division) on at least a set of the received data values (col 5, lines 36-39). Roach does not teach that the numerical function is to be performed on a subset, but not all of the received data values. Guttag is combined to teach performing a numerical function on a subset, but not all of the received data values (col 24, lines 1-3). The examiner respectfully submits that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.

See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Therefore, the examiner respectfully submits that claim 17 is unpatentable.

Claims 7 and 15

Appellant argues "The Examiner has not shown that the prior art contains a clear and particular teaching or suggestion for combining Rogers and Roach". The examiner respectfully disagrees. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, since Roach teaches connecting an input terminal of the node from an output terminal of another node in the graphical program (line 66 of col 3 to line 2 of col 4) and since Roach and Rogers' teachings are in the same field of graphical program wherein nodes are interconnected via wires, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Rogers' teaching transferring data via wires in Roach's system with the motivation being to enable transferring data directly via wiring connections between nodes.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon

hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Therefore, the examiner respectfully submits that claims 7 and 15 are unpatentable.

Claim 18

Appellant argues "In FIG. 75, the addition operation is performed by one node (the "ADD" node), and the subtraction operation is performed by another node (the "SUBTRACT" node). In other words, the two numerical functions are performed by two different nodes". The examiner respectfully disagrees since the terminal is indeed a compound node (see terminal pattern for a 3-node terminal in Fig. 75). This terminal performs a first numerical function (add function) and second numerical function (subtract function) on the first data collection (A and B).

Therefore, the examiner respectfully submits that claim 18 is unpatentable.

Claim 19

Appellant argues "Rogers does not teach that a single node includes two different output terminals, one for outputting a result of a first numerical function, and another for outputting a result of a second numerical function." The examiner respectfully disagrees since the compound node (see terminal pattern for a 3-node

terminal in Fig. 75) indeed produces two different outputs, one for add function (A+B) and another one for subtract function (A-B).

Therefore, the examiner respectfully submits that claim 19 is unpatentable.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Kieu D. Vu
Primary Examiner

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SUPERVISORY PATENT EXAMINER
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